

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-35 (cancelled).

36. (new) An image processing apparatus, comprising:

a reader module for inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image, said reader module approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits; and

an image processing/reproduction module connected to said reader module for processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data, said image processing/reproduction module outputting a reproduced image based upon said processed approximated color image data.

37. (new) The image processing apparatus according to claim 36 further comprising:

a variable length encoder unit for variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; and

a variable length decoder unit for variably decompressing the approximated color image data back to the approximated color image data so that each pixel is represented by the m bits.

38. (new) The image processing apparatus according to claim 36 wherein said reader module performs dithering for the error diffusion.

39. (new) A method of image processing, comprising the steps of:

inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image;

approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits;

processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data; and

outputting a reproduced image based upon said processed approximated color image data.

40. (new) The method of image processing according to claim 39 further comprising additional steps of:

variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; and

variably decompressing the approximated color image data back to the approximated color image data so that each pixel is represented by the m bits.

41. (new) The method of image processing according to claim 36 wherein said approximating step performs dithering for the error diffusion.

42. (new) An image processing system, comprising:

a reader module for inputting original image data including a pixel color value for each pixel represented by a first predetermined number of n bits in an original image, said reader module approximating the pixel color value into a second predetermined number of m bits while performing error diffusion so as to generate approximated color image data, the m bits being smaller than the n bits; and

an image processing/reproduction module operationally connected to said reader module for processing the approximated color image data for performing a combination of image processing, intensity correction and color correction so as to generate processed approximated color image data, said image processing/reproduction module outputting a reproduced image based upon said processed approximated color image data.

43. (new) The image processing system according to claim 42 further comprising:

a variable length encoder unit for variably compressing the approximated color image data to generate further approximated color image data before transmitting the further approximated color image data; and

a variable length decoder unit for variably decompressing the approximated color image data back to the approximated color image data so that each pixel is represented by the m bits.

44. (new) The image processing system according to claim 42 wherein said reader module performs dithering for the error diffusion.